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Norovirus Psychiatric Facility Toolkit

*Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology
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Edition 1.0*

This toolkit serves as a training resource for healthcare facilities within the state of Nevada.

Main Areas of Focus

- General Information
- Transmission
- Duration
- Contagious
- Prevention
- High Touch Surfaces
- Outbreak Practices
- Isolation
- Notification
- Surveillance Measure

General Information

- Anyone can become infected with norovirus
- Very contagious virus!
- Can be found in stool (feces) and vomit from those who are infected
- Symptoms: Nausea, vomiting, diarrhea, and abdominal cramping

Transmission



Transmission

- Person to Person

- Direct fecal-oral contact
- Ingestion of aerosolized vomitus
- Indirect via contaminated environment (touching the mouth, eyes, or nostrils)

- Food

- Consuming contaminated food or liquids
- Eating from contaminated surfaces (e.g. dishes, utensils, or trays)
- Contamination by infected food handlers

Transmission (cont)...

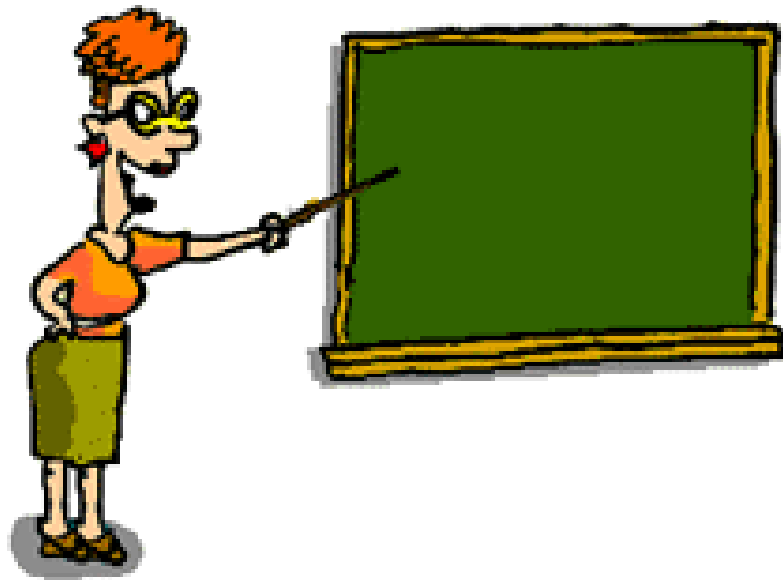
- **Contagious:**

- Infected people are contagious for 24-48 hours prior to the appearance of symptoms.
- Virus can shed In stool for as long as 72 hours after symptoms resolve.

- **Duration:**

- 12-72 hours

PREVENTION



Ways To Defend Against Norovirus?

- ✓ Educate staff members prior to Norovirus season (November-April).
- ✓ Assess risk for outbreak in the facility.
- ✓ Create outbreak management plan with staff members.
- ✓ Include guidelines on the duties and actions that must take place during an outbreak.
- ✓ Have staff sign an agreement form stating they are knowledgeable of the guidelines in the outbreak management plan.

Ways To Defend Against Norovirus? (cont)...

- ✓ Ensure outbreak management plan has an absentee policy for ill staff members.
- ✓ Identify areas for possible contamination throughout the facility.
- ✓ Identify how to decrease contamination in those areas.
- ✓ Identify high touch surfaces and increase cleaning frequency.

Cleaning of High Touch Surfaces Checklist

Today's Date: _____

SCOPE: This applies to all personnel

MATERIALS: Bleach, Water, Bucket, Clean Towels, Eye Protection, Disposable Gown, Gloves, and Shoe Covers,

SOLUTION (Bleach and water at a 1:10 ratio); Gloves ; Disposable Gown; Protective Eye Wear; Disposable Shoe Covers

PROCEDURE:

All surfaces are to be cleared of any debris with solution, and then cleaned a second time with the solution and left to dry.

High Touch Surface	Initials	Date	Time
Nursing Area			
Countertops	_____	_____	_____
Phone	_____	_____	_____
Computer keyboard and mouse	_____	_____	_____
Light switch	_____	_____	_____
Door knobs	_____	_____	_____
Patient medication cart	_____	_____	_____
Activity Area			
Countertops	_____	_____	_____
Phone	_____	_____	_____
Light switch	_____	_____	_____
Door knobs	_____	_____	_____
Chair backs	_____	_____	_____
Activity Items (if applicable)	_____	_____	_____
Cabinet faces and handles	_____	_____	_____
Laundry			
Washer and dryer surfaces	_____	_____	_____
Countertops	_____	_____	_____
Light switch	_____	_____	_____
Door knobs	_____	_____	_____
Chair backs	_____	_____	_____
Outside of trashcans	_____	_____	_____
Sink area	_____	_____	_____
Patient rooms			
Countertops	_____	_____	_____
Phone	_____	_____	_____
Light switch	_____	_____	_____
Door knobs	_____	_____	_____
Chair backs	_____	_____	_____
Activity Items (if applicable)	_____	_____	_____
Cabinet faces and handles	_____	_____	_____
Bed railings	_____	_____	_____
Window sills	_____	_____	_____
Door frames	_____	_____	_____
Private bathrooms (see list below)	_____	_____	_____
Bathrooms			
Wall railings	_____	_____	_____
Toilet seat covers	_____	_____	_____
Toilet paper dispensers	_____	_____	_____
Doors	_____	_____	_____
Walls	_____	_____	_____
Frames	_____	_____	_____
Sink and fixtures	_____	_____	_____

Verified By Supervisor: _____

VD/T

HIGH TOUCH SURFACES IN FACILITIES



High Touch Surfaces

- Community phone
- Ice machine
- Drinking Fountain
- Water bottles/ drinking containers
- Weight room
- Creative arts area
- Creative art equipment
- TV areas/ remote control



High Touch Surfaces (cont)...

- Dining Area
- Bathroom Areas
- Patient room (Bed, desk, chair, door knobs, light switch, book self)
- Gym
- Kitchen area if patients have access
- Nurse station
- Key boards
- Community areas

Disinfection Methods

- An effective disinfectant is a freshly-prepared dilute unscented bleach solution.
 - 1 cup household bleach solution to 9 cups of water and a contact time of up to 10 minutes
- Prepare a solution of fresh disinfectant everyday.
- Open bottles of concentrated chlorine will lose effectiveness after 30 days.
- Prepared disinfectant will lose effectiveness after 24hrs.
- **Do not mix bleach with other cleaning agents!**

OUTBREAK PRACTICES



Outbreak Practices

- All ill staff members must be removed from the facility and CANNOT return until they have been symptom free for 48-72 hours per the Centers for Disease Control and Prevention (CDC).
- [Norovirus in Healthcare Facilities Fact Sheet Link](#)
- Educate patients on hygiene (especially hand hygiene)
 - Use soap and water to clean hands. If soap and water is not available, use hand sanitizer only if hands are not visibly soiled.
- Provide supervised use of 60%-70% alcohol based sanitizer or non-alcohol based hand sanitizer products. (**disclaimer:** according to the CDC there were no studies available to evaluate the effect of non- alcohol based sanitizers on norovirus persistence on skin surfaces)

Outbreak Practices (cont)...

- Educate facility staff and residents regarding:
 - The “mode of transmission” of infection (e.g. person-to-person, hand-mouth, environmental contamination)
 - Signs and symptoms
 - Individual and group risk of contracting the infection
 - Measures for self protection and risk reduction.
- Supervise use of ice machines or have staff members issue ice to patients.
- Test all symptomatic patients to identify the organism causing illness.

Specimen Collection

- Whole stool is the preferred clinical specimen for laboratory diagnosis of Norovirus. Ideally, specimens should be collected during the acute phase of illness (within 48 to 72 hours after symptoms start) while stools are still liquid or semisolid. Virus is excreted in the greatest amount during this time.
- Norovirus can sometimes be detected in stool specimens that are collected later in the illness or after the symptoms have resolved (up to 7 to 10 days after onset).

Specimen Collection (cont)...

- Whole stool specimens should be kept refrigerated at 39°F (4°C) if testing is done within 2 to 3 weeks.
- Vomitus
 - Vomitus can be collected to supplement stool specimens during an investigation.
 - These specimens should be collected, stored, and shipped.
- If specimens are shipped to a laboratory samples should be:
 - Sealed in a separate bag
 - Kept on a frozen refrigerant packs in a an insulated, waterproof polystyrene contain per CDC
 - [Specimen Collection Link](#)

Outbreak Practices

- It is advisable to discontinue all new admissions and/or visitation to the facility until outbreak is over.
- If the facility accepts new admissions, remember to notify Emergency Medical Services (EMS), patients, families and/or the facility the patient is arriving from of the outbreak. If visitation is allowed, visitors should go directly to the person they are visiting.
- Increase cleaning of high touch surfaces with a sanitizer that has a virucidal claim against norovirus or a bleach based sanitizer.
- Ensure drinking containers are changed regularly or disposed (e.g. color code containers).

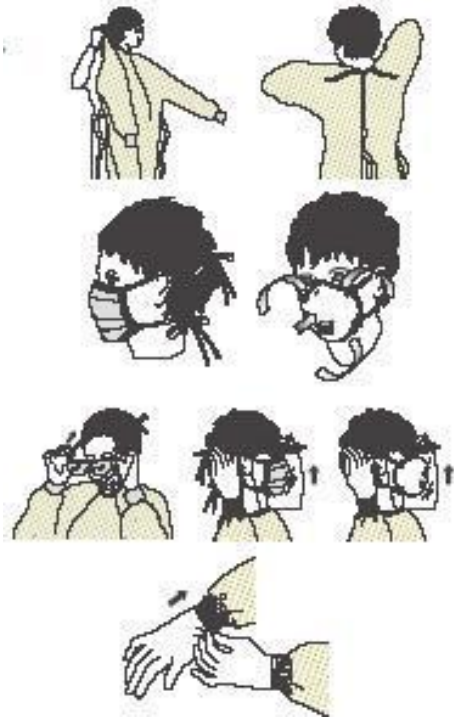
Outbreak Practices (cont)...

- Enact outbreak protocol developed for the facility.
- Use disposable dishware, silverware and condiments. If reusable dishware/silverware are used, ensure proper washing, rinsing, sanitizing and air drying before use.
- Use proper personal protective equipment (PPE) [gowns, gloves, masks, goggles] as needed when handling patients and cleaning up vomitus and diarrhea. Dispose of PPE properly and change PPE between patients to prevent the spread of infection.
- Conduct in-services for staff members on control measures and prevention.

Outbreak Practices (cont)...

- Identify areas for possible contamination and identify how to decrease contamination.
- Identify contaminated linen and bag properly for cleaning and disinfection(e.g. bag soiled linen in a clear bag first and then a red bag) so that those handling linen know that it is soiled and must be handled appropriately.
- Avoid cross contamination while cleaning. Do not use the same cloth to clean rooms and other areas/surfaces.
- Change PPE after handling soiled linen and before handling clean linen.
- Hands **MUST** be washed between handling soiled and clean linen.
- When previously ill staff members return to work, they should work with ill patients only to prevent the spread of infection to asymptomatic patients.

Outbreak Practices (cont)...



Isolation

- Isolation if possible lasts for 48-72 hours after symptoms resolve.
- Verify areas that the patient can be isolated from the asymptomatic population.
- Keep those in isolation busy with personal activities.
- If isolation is not an option, cohort ill population to prevent the spread of infection to the asymptomatic population.
- Cohort staff members to work with only ill patients or asymptomatic patients only.
- Suspend group activities that would allow symptomatic residents and asymptomatic residents to comeingle (e.g. dining events, social hour).

Notification

- Upon knowledge of an outbreak, NOTIFY Nevada Division of Public and Behavioral Health (NDPBH) and the county health department.
- Submit Daily line list with the name and required information for each patients and/or staff member that is exhibiting symptoms of illness (vomiting, diarrhea, nausea).
- Continue to report symptomatic patients using the line list until the facility has no new cases. Reports stating “no new cases” must be submitted for 7 days before the outbreak will be declared over by the NDPBH.

Example of Daily Line List



GASTROINTESTINAL ILLNESS/NOROVIRUS OUTBREAK CASE REPORT FORM

FACILITY INFORMATION

facility name:

total staff: patient census:

REPORTER INFORMATION

full name: report date:

telephone number:

#####

CASE INFORMATION

case: ☐ new ☐ updated

first name: last name:

category: ☐ patient ☐ staff

staff position:

date of birth: age: sex: ☐ male ☐ female

first date of illness: last date of illness:

symptoms:

☐ nausea
☐ vomiting
☐ diarrhea
☐ other →

Do not use general terms such as sick, GI symptoms, and so on. Be specific.

other - Specify.

Fax all positive laboratory results.

laboratory results:

hospitalized:

☐ no
☐ yes

hospital name:

died: ☐ no ☐ yes

comments:

This form must be faxed by 1 PM daily, including weekends, to (775) 684-5999.

For additional information or assistance, contact the Office of Public Health Informatics and Epidemiology at nshdepi@health.ny.gov or (775) 684-5911.

Do not email a copy of an outbreak case report form. Those are to be submitted only by fax.

Notification: Contact Information

Nevada Division of Public and Behavioral Health

4150 Technology Way
Carson City, NV 89706

<http://health2k.state.nv.us/>

PH: 775-684-5911 (24 hours)

Confidential Fax: 775-887-2138

Southern Nevada Health District

330 S. Valley View
Las Vegas, NV 89107

<http://www.cchd.org>

PH: 702-759-1000 (24 hours)

Confidential Fax: 702-579-1414

Carson City Health & Human Services

900 E. Long St
Carson City, NV 891706

<http://www.carson-city.nv.us>

Ph: 775-887-2190 After hours: 775-887-2008

Confidential Fax: 775-887-2138

Washoe County Health District

1001 E. Ninth St, Building B
P.O. Box 11130
Reno, NV 89520-0027

<http://www.co.washoe.nv.us/health>

Ph: 775-328-2447 (24 hours)

Confidential fax: 775-328-3764

Surveillance Measures

- Review patient medication, medical history, and medication symptoms to ensure their symptoms are not medication related.
- Conduct daily surveillance of patients and staff members to detect outbreaks as early as possible.
- Make note of those individuals who are experiencing vomiting, nausea, and/or diarrhea (2 or more loose stools in a 24-hour period).

References

- Centers for Disease Control and Prevention (2011). Guideline for the Control of Norovirus Gastroenteritis Outbreaks in Healthcare Setting. From: <http://www.cdc.gov/hicpac/pdf/norovirus/Norovirus-Guideline-2011.pdf>
- Centers for Disease Control and Prevention (2010). Norovirus in Healthcare setting. Website: <http://www.cdc.gov/HAI/organisms/norovirus.html>
- Centers for Disease Control and Prevention (2012). Specimen Collection. Website: <http://www.cdc.gov/norovirus/lab-testing/collection.html>
- Nevada State Health Division Outbreak Preparedness & management toolkit (2012). Norovirus Management toolkit. From: http://health.nv.gov/PDFs/HSPER/NorovirusManagementToolkitResponsePlan_Version1-1.pdf
- State of Nevada Department of Health and Human Services (2010). Recommendation for Preventing and Controlling Viral Gastroenteritis Outbreaks in Medical and Residential Care Facilities.
From: http://health.nv.gov/HCQC/TechnicalBulletins/2010-03-15_NorovirusInstructionalLetterFacilities.pdf